

# Orgalim recommendations on Alternative Fuels Infrastructure Directive revision

## Executive summary

Orgalim welcomes the upcoming revision of the Alternative Fuels Infrastructure Directive. To make the regulatory framework fit for purpose we recommend addressing the following issues:

1. Focus on fuels that are available as **low carbon fuel sources** today, or those with a clear low carbon pathway already underway.
2. Turn the **Directive into a regulation** and introduce **binding targets** for infrastructure roll-out.
3. Extend the scope of the regulatory framework to cover **rail and airport infrastructure** for ground movements.
4. Propose a strategy and introduce specific targets for **heavy-duty vehicles**.
5. Place **consumer needs at the centre**.
6. Adopt **international, open standards** and have them strictly applied.
7. Ensure that the charging infrastructure is equipped with **smart charging** technology.
8. Introduce **cybersecurity** requirements.

## Introduction

Alongside the decarbonisation of Europe's electricity production, battery and fuel cell electric vehicles (EVs) represent an ever more important means of decarbonising road transport. However, the lack of recharging points in some regions, insufficient smart grid development, and difficulties encountered by consumers looking for easy access to the infrastructure remain among the most important barriers that hinder the wider use of vehicles and vessels running on alternative fuels today.

According to the European Alternative Fuels Observatory, there are currently a little bit more than 200,000 charging points in operation. This will not be enough in a few years' time when the take-up of low and zero-emission vehicles will accelerate. As predicted in the European Green Deal, by 2025 about 1 million publicly accessible recharging and refuelling points will be needed for the 13 million vehicles running on alternative fuels.

The transition towards zero-emission mobility should be supported by the deployment of a dense, widespread, reliable and easy to use alternative fuels infrastructure for all types of vehicles, from light EVs up to trucks and buses. Fast-charging facilities are needed on major highways, for example at motorway service areas, to meet the needs of EV owners when they are travelling long distances, and slow or normal charging facilities are needed where vehicles are parked overnight and near places of work.

Europe's technology industries, represented by Orgalim, welcome the revision of the Directive on the Deployment of Alternative Fuels Infrastructure 2014/94/EU (henceforth the Directive or AFID) as an opportunity to make the regulatory framework fit for purpose. In this paper we provide our key recommendations and seek the support of the EU policymakers for their implementation.

## 1. Focus on fuels that are available as low carbon fuel sources today, or those with a clear low carbon pathway already underway

Three types of fuels fall under the scope of AFID: electricity, hydrogen and natural gas (CNG and LNG). While renewable electricity and green hydrogen are real alternatives to fossil fuels, natural gas is still mainly of fossil origin. To achieve climate neutrality, a 90% reduction in transport emissions is needed by 2050. Therefore, the revision of the Directive needs to address those fuels that have the greatest potential to decarbonise the transport sector.

## 2. Turn the Directive into a regulation and introduce binding targets for a recharging and refuelling infrastructure

The Directive requires Member States to develop national plans (national policy frameworks, NPFs) to put in place a sufficient number of publicly available refuelling and recharging points for vehicles and vessels running on alternative fuels. Such coordinated development of an infrastructure aims at prohibiting market fragmentation. However, the analysis of the NPFs<sup>1</sup> shows that they are not consistent at EU level. Member States prioritise different alternative fuels and their ambitions vary greatly. Overall, the future estimates and national targets are significantly lower than those estimated in the Impact Assessment<sup>2</sup> for the Directive. The NPFs do not ensure the build-up of a minimum alternative fuels infrastructure in the EU. For example, only ten Member States define a target that would ensure at least one publicly accessible recharging point per ten EVs for 2020, according to the non-binding European Commission recommendation. Furthermore, the NPFs scarcely cover shore-side electricity and very few of them contain any targets or measures for the uptake of these alternative fuel sources. Hydrogen is included in 15 NPFs and analysis shows that while in central Europe hydrogen refuelling infrastructure will be deployed, this will not be the case in north eastern Europe.

We believe that the low level of ambition of the NPFs is a consequence of the soft requirements established by the Directive. Therefore, Orgalim recommends replacing the system of NPFs with more efficient measures such as concrete, binding and enforceable targets per Member State, defined using a common methodology. In addition, we recommend establishing ambitious plans for shore-side electricity infrastructures in harbours with the proper incentive schemes.

The patchy roll-out of alternative fuels infrastructure is not the only outcome of fragmented implementation by Member States. Users of vehicles running on alternative fuels do not enjoy seamless travelling across borders today, as there is a lack of coherent and transparent user information on availability, accessibility and usability of recharging stations. Furthermore, a broad variety of approaches to using and paying at these stations currently exists. To eliminate inconsistent implementation and interpretation across the EU and ensure a swift and harmonised rollout of infrastructure in all Member States we recommend replacing the Directive with a regulation.

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<sup>1</sup> SWD (2019) 29 final

<sup>2</sup> SWD (2013) 5 final

### 3. Extend the scope of the regulatory framework to cover rail and airport infrastructure for ground movements

Currently the Directive covers alternative fuels infrastructure for road and shipping. The scope could be broadened in order to include airport infrastructure for ground movements (e.g. vehicles for transporting passengers) and the rail sector. At present 60% of the European rail network is already electrified (80% of traffic is running on these lines). Hydrogen offers a zero-emission alternative to diesel where electrification is difficult.

### 4. Propose a strategy and introduce specific targets for heavy-duty vehicles

There is a huge potential to decarbonise the heavy-duty vehicle sector which currently accounts for almost a quarter of CO<sub>2</sub> emissions from road transport in the EU. Currently AFID only applies to LNG-fuelled trucks.

In order to be able to drive the heavy-duty vehicle on hydrogen or electricity there is a big demand for infrastructure, both locally for city distribution and for longer trips between cities or countries. It is therefore of great importance to set up a strategy for heavy-duty vehicles, in order to get the new types of vehicles on the road and to reduce their emissions.

### 5. Place consumer needs at the centre

To accelerate the roll-out of an alternative fuels infrastructure in urban areas where the vast majority of daily trips take place, a 'right to charge' should be guaranteed so that all EV owners can request the installation of charging points near their home or office, where vehicles are charged most of the time.

To ensure the seamless driving experience, recharging should be made as easy as refilling the petrol tank is now. Therefore, it is of the utmost importance to ensure that drivers have access to information on availability, accessibility and usability of recharging stations, as well as choice regarding payment methods. An EU-wide publicly available map of the recharging infrastructure would reduce range anxiety. Such a map should contain data on location, available charge solutions, connectors and payment methods, basic information on prices, and occupation status for all charging stations.

As for the payment methods, we believe that ad-hoc charging (without entering into a contract) should remain a minimum requirement – however harmonisation of ad-hoc charging solutions is needed, as currently this requirement has been implemented in very diverse ways throughout the EU and is therefore not consumer-friendly.

Finally, it is important to provide adequate and precise information to users about their bills. To have a sound basis for billing consumers, the payment services should make use of intelligent metering systems where this is technically feasible and economically reasonable.

### 6. Adopt international, flexible standards and have them strictly applied

To ensure the interoperability of the full ecosystem throughout Europe, it is important to adopt international standards.

Standardisation on the demand-side is being undertaken by IEC and CENELEC committees and it needs to be understood how this will align with the needs of AFID. Standards have been developed as part of running trials to prove technology and consumer adoption; as there is a move to operate at scale there needs to be confidence that these will continue to operate efficiently and are therefore worthy of adoption. Two main areas need to be considered. Firstly, communication protocols between the recharging points and the energy flexibility operators to ensure that the best use is made of the grid resource where a number of actors will be involved – this will mean that consumers can switch seamlessly between them as their individual offerings become more appropriate. Secondly, charging of heavy-duty vehicles, in particular the electric road charging.

In line with usual practice, the approach to standardisation in the legislation should be technology-neutral, so that the standards remain flexible. Furthermore, a directive or regulation should not prescribe specific standards.

## 7. Ensure that the charging infrastructure is equipped with smart charging technology

As the proportion of EVs will increase significantly, they will offer an important storage capacity as batteries can be used to balance loads on the grid when demand is high. Smartly managing the charging process will be key: efficient off-peak charging, and charging when there are plenty of renewables and the cheapest electricity is available, should be the systematically preferred option to charging at peak-hours. Charging points should be increasingly capable of adapting power charging by reacting to price and energy management system signals, or to conditions in the power system. Energy management will be increasingly important, as it helps grids to accommodate a higher number of EVs charging when electricity demand is low, and when supply from carbon-free electricity is available. The review of AFID, therefore, presents an opportunity to create a robust framework for the successful integration of demand-side flexibility.

## 8. Introduce cybersecurity requirements

Currently the cybersecurity risks are addressed in the Directive on security of network and information systems<sup>3</sup> for operators of essential services and the EU Cybersecurity Act<sup>4</sup> for the elaboration of cybersecurity schemes for ICT products. To complement this policy framework, specific requirements for an alternative fuels infrastructure are needed at EU level. However, we need to ensure a harmonised approach towards cybersecurity on the horizontal level and try to avoid fragmentation as much as possible. The specific requirements should be adapted to the level of risk and be consistent with grid cybersecurity schemes, guarantee customer privacy, and include protective measures against denial-of-service attacks.

## Conclusion

The revision of AFID should ensure that sufficient infrastructure is in place to support the decarbonisation of the transport sector and to help reach the climate goals set out in the Paris Agreement and the European Green Deal. Europe's technology industries stand ready to play their part.

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<sup>3</sup> Directive (EU) 2016/1148

<sup>4</sup> Regulation (EU) 2019/881

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